

# IPC IN DENTAL CLINIC



وزارة الصحة  
Ministry of Health

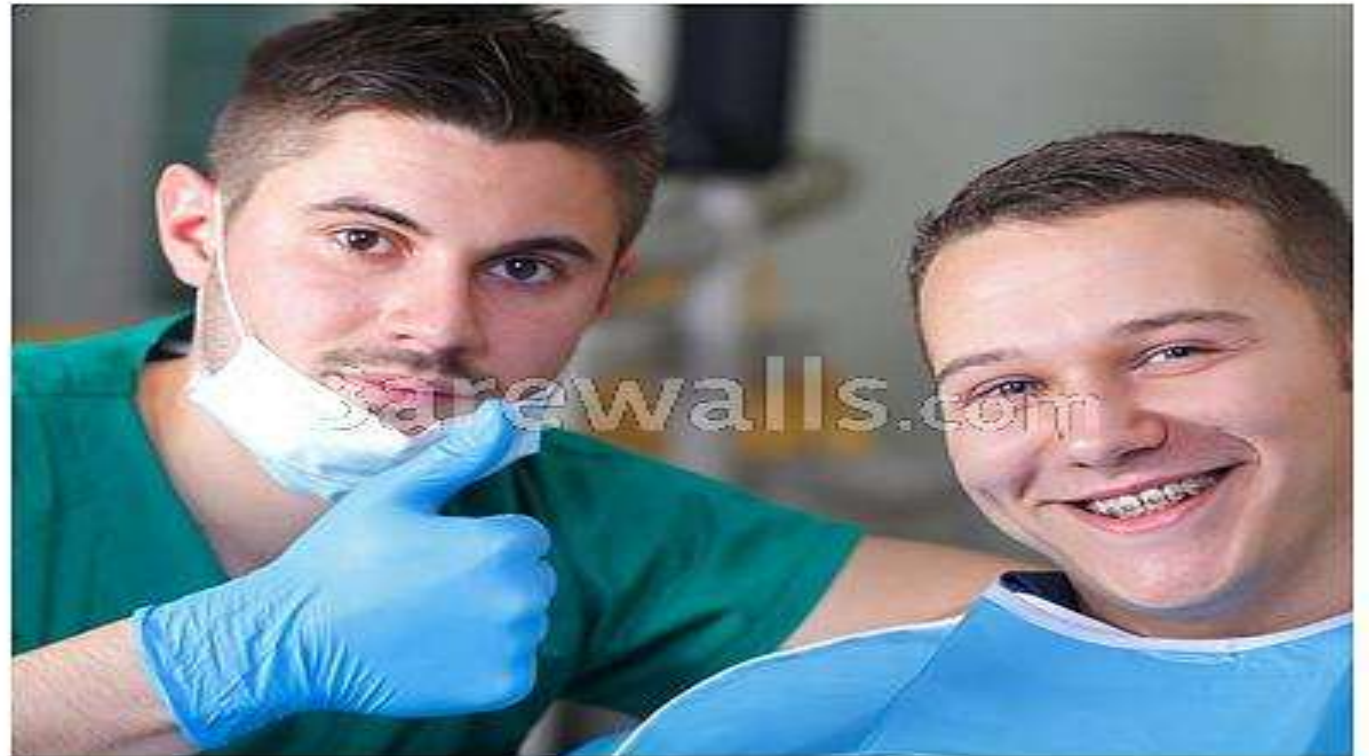
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# IPC IN DENTAL UNIT

- To prevent and control infection in dental clinic because dental healthcare workers and patients are exposed to a wide variety of microorganisms via blood and oral/respiratory secretions.
- These microorganisms may include (HBV), (HCV), human immunodeficiency virus (HIV), Mycobacterium tuberculosis, Staphylococci, Streptococci, and other viruses and bacteria

# IPC IN DENTAL UNIT

- All dental clinic staff shall understand the infection control activities that prevent or reduce the
- risk of infection transmission to themselves and their patients.
- All dental HCWS to be vaccinated against Hepatitis B.
- Dental units and environmental surfaces to be cleaned after each patient

# ASEPTIC TECHNIQUE IN THE DENTAL SETTING

- Aseptic techniques and procedures are fundamental components of infection control in
- the practice of dentistry.
- These techniques help to break the cycle of infection and to eliminate cross contamination.



# IMPORTANT RECOMMENDATIONS ARE:

## Hand Hygiene

- As in any clinical practice setting, hand hygiene plays a central role in the reduction of cross-contamination and in infection control.

## Use Personal Protective Equipment and Barrier Techniques

- Dental health care personnel must wear personal protective equipment (PPE) when performing procedures which cause a risk of contact with blood, blood-contaminated saliva, or mucous membranes.



# IMPORTANT RECOMMENDATIONS ARE:



## Protective clothing

Protective clothing such as reusable or disposable gowns or uniforms should be worn when clothing is likely to be soiled with blood or other body fluids.

Clothing typically must have a high neck and long sleeves to protect the arms if splash and spatter occurs.

Protective clothing shall be changed at least daily and definitely when visibly soiled. Protective clothing must be removed before leaving the workplace. Female dental workers must wear a separate veil for the working area and must change this veil before leaving work.

# IPC PROCEDURE PRETREATMENT

- Remove unnecessary items from the dental procedure area.
- Preplan the materials needed during treatment.
- Utilize disposable items whenever possible.
- Use prearranged tray set-ups for routine or frequently performed procedures.
- Use individualized, sterilized bur blocks for each procedure
- If indicated, have the rubber dam setup on the tray.

# IPC PROCEDURE PRETREATMENT

- If indicated, have the rubber dam setup on the tray.
- Identify those items that will become contaminated during treatment.
- Review patient records before initiating treatment and place radiographs on the view box.
- Follow manufacturer's directions for care and for
- maintenance of dental unit water lines (DUWL)
- Prepare personnel involved in patient care.
- PPE for the patient





# STERILIZATION OF HAND PIECES

All high-speed dental hand pieces, low-speed hand piece components used intraorally, and reusable prophylaxis angles should be routinely sterilized by an appropriate method **between** patient-use.

# ANTIRETRACTION VALVES



Because retraction valves of water lines from dental units may cause aspiration of patient material back into the hand piece and water lines, antiretraction valves (one-way flow check valves) should be installed to prevent fluid aspiration and to reduce the risk of transfer of potentially infective material.

# FLUSHING HIGH-SPEED HAND PIECES

- High-speed hand pieces should be run to discharge water an minimum of 20-30 seconds after use on each patient.
- This procedure is intended to aid in physically flushing out of patient material that may have entered the turbine and air or water lines.
- Use of an enclosed container or high-velocity evacuation should be considered in order to minimize the spread of spray, spatter, and aerosols generated during discharge procedures.

# DENTAL UNIT WATER LINES (DUWL)

Standard procedures such as flushing DUWLs at the beginning of each clinic day and between patients, and sterilization of dental handpieces between patients are interventions that can minimize the theoretical risk of transmission from this environmental source

# DENTAL UNIT WATER LINES (DUWL)

- Microbial biofilms are ubiquitous in the environment and can be found on any water delivery system. For most non-surgical dental procedures, e.g. subgingival scaling or restorative procedures as well as initial access into the dental pulp water use as coolant and irrigating the patient's dental cavity from the DUWL is sufficient.



# WATER QUALITY



- Use water that meets the EPA regulatory standards for drinking water (i.e., <200 CFU/mL of
- heterotrophic water bacteria) for routine dental treatment output water. Scheduled water sampling
- must be done to monitor water quality.

# SINGLE USE DISPOSABLE INSTRUMENTS

- Use single-use disposable instruments (e.g., prophylaxis angles, prophylaxis cups and brushes, tips
- for high-speed air evacuators, saliva ejectors, and air/water syringes) for one patient only and
- discard after use.

# CLEANING AND DISINFECTION OF DENTAL UNIT AND ENVIRONMENTAL SURFACES

- General principles:
  - All dental and medical instruments can be classified into three categories: critical, semi- critical or
  - non-critical, depending on the potential risk for infection associated with their intended use and
  - how they are reprocessed. Refer to ***Classification of Contaminated Patient Care***

# ***TRANSPORTED TO OR FROM THE CSSD***

- Wear heavy-duty (reusable utility) gloves when cleaning and reprocessing to lessen the
- risk of injury.
- Clean the instruments thoroughly to remove debris prior to delivery to the Central Sterile
- Supply Department (CSSD) for disinfection and sterilization.
- Place the instruments into a container of water or disinfectant/detergent as soon as
- possible after use to prevent organic material from drying on their surfaces, thus making cleaning easier.
- Dental units and environmental surfaces can be divided into

# IPC PROCEDURE POST TREATMENT

- Continue to wear personal protective equipment during clean-up.
- Remove all disposable barriers.
- Dispose of blood and suctioned fluids that have been accumulated in the collection bottles during treatment.
- Clean and disinfect all items not protected by barriers.
- Remove the tray with all instruments to a sterilization/clean-up area separate from the treatment room.
- Sterilization of hand pieces is recommended whenever possible.
- Waste that is contaminated with blood or saliva should be placed in sturdy leak-proof bags.
- Handle sharps items carefully, Remove personal protective equipment.